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CRAIG W. RODDY			EXAMINER	
HALLIBURTON ENERGY SERVICES			COY, NICOLE A	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/827,022

Applicant(s)

REDDY ET AL

Examiner

NICOLE COY

Art Unit

3672

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5, 6, 8, 10-16 and 37-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 6, 8, 10-16 and 37-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/808)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 42 is objected to because of the following informalities: There are two claims numbered 42. For purposes of examination, the second 42 is examined and rejected as claim 43. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 8, 10-16, 39, 43-47, and 51-58 are rejected under 35 U.S.C. 102(b) as being anticipated by Chatterji et al. (USP 5,688,844).

With respect to claim 1, Chatterji discloses a method of servicing a wellbore in contact with a subterranean formation, comprising: displacing a sealant composition comprising a colloiddally stabilized latex into the wellbore (see column 4 lines 40-64); wherein the colloiddally stabilized latex remains stable in a solution of at least 25 weight percent salt without additional stabilizers (wherein this would inherently happen as the composition of Chatterji's stabilized latex emulsion is the same as that of Applicants; wherein the latex in Chatterji would inherently remain stable in the presence of salt because it is stabilized by the third monomer mentioned in column 4 lines 55-64).

With respect to claim 2, Chatterji discloses that the colloiddally stabilized latex comprises: an aliphatic conjugated diene monomer; an additional monomer comprising a non-aromatic unsaturated mono- or di-carboxylic ester monomer, an aromatic unsaturated monomer, a nitrogen-containing monomer, or combinations thereof; and a protective colloid (see column 4 lines 40-64).

With respect to claim 8, monovalent ion, a divalent ion, or combinations thereof are well known salts found in wellbores and they would inherently be present.

With respect to claims 10, 47, 51-55, Chatterji discloses that the sealant compositions comprises fibers, beads or combinations thereof (wherein the polymer would inherently be in the form of fibers or beads).

With respect to claims 11, 39, and 43-46, Chatterji discloses that the sealant composition comprises a cement slurry (see column 6 lines 35-48).

With respect to claim 12, Chatterji discloses that the sealant composition is displaced into an annulus and allowed to set (see column 1 lines 6-9).

With respect to claim 13, Chatterji discloses that the sealant composition is positioned in the wellbore to isolate the subterranean formation from a portion of the wellbore, to support a conduit in the wellbore, to plug a void or crack in the conduit, to plug a void or crack in a cement sheath disposed in an annulus of the wellbore, to plug an opening between the cement sheath and the conduit, or combinations thereof (see column 1 lines 11-29).

With respect to claim 14, Chatterji discloses the colloiddally stabilized latex comprises a vulcanizable group, a vulcanizing agent, a vulcanization accelerator, a

vulcanization retarder, or combinations thereof (see column 3 lines 57-60; wherein sulfur is a vulcanizing agent).

With respect to claim 15, Chatterji discloses that the colloiddally stabilized latex comprises a crosslinkable monomer, an acidic catalyst, a thermosetting resin, or combinations thereof (see column 4 lines 41-54).

With respect to claims 16 and 58, Chatterji discloses combining a drilling fluid with the sealant composition near a loss-circulation zone, thereby forming a solid mass in the loss-circulation zone (see column 1 lines 11-29).

With respect to claims 56 and 57, Chatterji discloses that the wellbore service comprises cementing in the wellbore (see column 3 lines 38-46).

4. Claims 1, 2, 6, 8, 10-16, 39, 42-47, and 50-58 are rejected under 35 U.S.C. 102(b) as being anticipated by Griffith et al. (USP 6,448,206).

With respect to claim 1, Griffith et al. discloses a method of servicing a wellbore in contact with a subterranean formation, comprising: displacing a sealant composition comprising a colloiddally stabilized latex into the wellbore (see column 4 lines 25-39), wherein the colloiddally stabilized latex remains substantially stable in a solution of at least 25 weight percent salt without additional stabilizers (wherein the latex in Griffith would inherently remain stable in the presence of salt because it is stabilized by the third monomer mentioned in column 4 lines 40-49).

With respect to claim 2, Griffith et al. discloses that the colloiddally stabilized latex comprises: an aliphatic conjugated diene monomer (see column 6 line 48 to column 7

line 2); an additional monomer comprising a non-aromatic unsaturated mono- or di-carboxylic ester monomer, an aromatic unsaturated monomer, a nitrogen-containing monomer, or combinations thereof (see column 6 line 48 to column 7 line 2); and a protective colloid (see column 2 line 65, wherein the surfactant is a protective colloid).

With respect to claim 6, Griffith et al. discloses that the colloiddally stabilized latex comprises a functionalized silane generally represented by the formula as claimed by applicant (see column 9 line 7-20).

With respect to claim 8, monovalent ion, a divalent ion, or combinations thereof are well known salts found in wellbores and would be present.

With respect to claims 10, 47, 50-55, Griffith et al. discloses that the sealant composition comprises fibers, beads, or combinations thereof (wherein the polymer would be in the form fibers or beads).

With respect to claims 11, 39, and 42-46, Griffith et al. discloses that the sealant composition comprises a cement slurry (see column 9 lines 21-45).

With respect to claim 12, Griffith et al. discloses that the sealant composition is displaced into an annulus of the wellbore and allowed to set.

With respect to claim 13, Griffith et al. discloses the sealant composition is positioned in the wellbore to isolate the subterranean formation from a portion of the wellbore, to support a conduit in the wellbore, to plug a void or crack in the conduit, to plug a void or crack in a cement sheath disposed in an annulus of the wellbore, to plug an opening between the cement sheath and the conduit, or combinations thereof (see the abstract).

With respect to claim 14, Griffith et al. discloses that the colloiddally stabilized latex comprises a vulcanizable group, a vulcanizing agent, a vulcanization accelerator, a vulcanization retarder, or combinations thereof (see column 9 lines 21-45).

With respect to claim 15, Griffith et al. discloses that the colloiddally stabilized latex comprises a crosslinkable monomer, an acidic catalyst, a thermosetting resin, or combinations thereof (see column 9 lines 21-45, wherein the polymer can be crosslinked).

With respect to claims 16 and 58, Griffith et al. discloses a drilling fluid with the sealant composition near a loss-circulation zone, thereby forming a solid mass in the loss-circulation zone (see column 2 line 64 to column 3 line 10).

With respect to claims 56 and 57, Griffith et al. discloses cementing in the wellbore (see column 1 lines 11-13 and column 9 line 33).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3, 5, 37, 38, 40, 41, 48, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chatterji in view of Krishanan (USP 5,900,451).

With respect to claims 3 and 38, Chatterji does not disclose that the protective colloid comprises polyvinylalcohol, a cellulose ether, a natural gum, a synthetic gum,

polyacrylic acid, an acrylate, a poly(vinyl alcohol)co(vinyl amine) copolymer, or combinations thereof. Krishnan et al. teaches adding protective colloids, such as polyvinylalcohol, a cellulose ether, a natural gum, a synthetic gum, polyacrylic acid, an acrylate, a poly(vinyl alcohol)co(vinyl amine) copolymer, to a latex because of the rheology and tack properties. It would have been obvious to modify Chatterji by adding a protective colloid as noted above, because of the rheology and tack properties of systems with said protective colloids, which increases the tackiness of the emulsion (see column 1 lines 26-30).

With respect to claims 5 and 37, Chatterji does not disclose that the colloiddally stabilized latex comprises an oxyalkylene functional monomer. Krishnan et al. discloses an oxyalkylene monomer in order to add stability to the polymer. It would have been obvious to modify Chatterji by including an oxyalkylene monomer as taught by Krishnan et al. in order to add stability to the polymer.

With respect to claims 40 and 41, Chatterji discloses that the sealant composition comprises a cement slurry (see column 6 lines 35-48).

With respect to claims 48 and 49, Chatterji discloses that the sealant compositions comprises fibers, beads or combinations thereof (wherein the polymer would be in the form of fibers or beads as this is the shape of sealant compositions).

7. Claims 6, 42, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chatterji in view of Griffith et al. (USP 6,448,206).

With respect to claim 6, Chatterji does not disclose a functionalized silane. Griffith et al. teaches adding a functionalized silane represented by the formula as claimed by Applicant in order to strengthen the bond between subterranean formations surfaces and the hardened sealing compositions. See column 9 lines 7-20. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Chatterji by including a silane as taught by Griffith et al. in order to strengthen the bond between subterranean formation surfaces and the hardened sealing compositions.

With respect to claim 42, Chatterji discloses that the sealant composition comprises a cement slurry (see column 6 lines 35-48).

With respect to claim 50, Chatterji discloses that the sealant compositions comprises fibers, beads or combinations thereof (wherein the polymer would be in the form of fibers or beads as this is the shape of sealant compositions).

8. Claims 3, 5, 37, 38, 40, 41, 48, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grittith et al. in view of Krishanan et al. (USP 5,900,251).

With respect to claims 3 and 38, Griffith et al. does not teach that the protective colloid comprises polyvinylalcohol, a cellulose ether, a natural gum, a synthetic gum, polyacrylic acid, an acrylate, a poly(vinyl alcohol)co(vinyl amine) copolymer, or combinations thereof. Krishnan et al. teaches adding protective colloids, such as polyvinylalcohol, a cellulose ether, a natural gum, a synthetic gum, polyacrylic acid, an acrylate, a poly(vinyl alcohol)co(vinyl amine) copolymer, to a latex because of the

rheology and tack properties. It would have been obvious to modify Grtith et al. by adding a protective colloid as noted above, because of the rheology and tack properties of systems with said protective colloids.

With respect to claims 5 and 37, Griffith et al. does not disclose that the colloiddally stabilized latex comprises an oxyalkylene functional monomer. Krishnan et al. discloses an oxyalkylene monomer in order to add stability to the polymer. It would have been obvious to modify Griffith et al. by including a oxyalkylene monomer as taught by Krishnan et al. in order to add stability to the polymer.

With respect to claims 40 and 41, Griffith et al. discloses that the sealant composition comprises a cement slurry (see column 9 lines 21-45).

With respect to claims 48 and 49, Griffith et al. discloses that the sealant composition comprises fibers, beads, or combinations thereof (wherein the polymer would be in the form fibers or beads).

Response to Arguments

9. Applicant's arguments filed 6/5/08 have been fully considered but they are not persuasive. Applicant argues that neither Chatterji nor Griffith disclose a collodially stabilized latex that remains stable in a solution of at least 25 weight percent salt without additional stabilizers. Applicant argues that both Chatterji and Griffith teach that LATEX 2000 is in accordance with their teachings. However, LATEX 2000 does not contain the third monomer that both Chatterji and Griffith disclose. It is this third monomer that is a protective colloid which stabilizes the latex. As both Chatterji and Griffith disclose this

third monomer, they would inherently be stable in the presence of 25 weight percent salt. While Applicant has given comparison data for LATEX 2000, Applicant has not shown how the claimed invention is different from the compositions containing the third monomers of both Chatterji and Griffith. As the compositions of Chatterji and Griffith are the same as claimed, they would inherently be stable in the presence of salt. Thus, the claims are not in condition for allowance.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICOLE COY whose telephone number is (571)272-5405. The examiner can normally be reached on M-F 7:30-5:00, 1st F off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William P Neuder/
Primary Examiner, Art Unit 3672

nac